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# Financial Needs of the Railways

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ANY attempt to forecast railway finances is a hazardous proceeding at the present time, owing to the uncertainty that surrounds the future of the American railway system. In what follows, the underlying assumptions are that the President will adhere to his decision to return the railways to their owners at the close of the present year; that they will thereupon continue under private management and ownership, with such modified provisions for regulation and rate-making as may be imposed by Congress; finally, that these modifications will almost certainly be such as to have a bearing on railway credit and, therefore, on the ability of the railways to finance their needs.

The problem of railway financial needs may be studied under three principal heads: First, the physical needs of the railways; second, the cost of such physical needs; third, how such cost is to be financed.

## PHYSICAL NEEDS

In a sense the present article is a companion to one by the writer in *The Annals* for March, 1918, which endeavored to reach an estimate of the physical needs of the railways while under federal control. It was estimated that the railways of the United States, during the period of federal control, would be under the necessity of putting not less than \$500,000,000 a year into their property in the form of additions and improvements to plant. This estimate was based on an annual addition of 500 miles of main line, 2,500 miles of other tracks, 2,000 new locomotives, 50,000 new freight cars, and various terminal and other facilities. By "new" locomotives and cars is meant *net* additions, over and above replacement needs. The record for 1918, which of course was not available at the time that article was written, shows that there were added to railway equipment during 1918 about 1,000 new locomotives, no freight cars, and no passenger cars. In fact, the number of freight and passenger cars built during 1918 was probably insufficient to replace those retired for various causes.

The conclusion is inevitable that the railways will face a heavy improvement program when they regain control of their properties.

To arrive at an idea of future financial needs, one must also have some knowledge of physical needs, and that in turn depends on an estimate, or guess, as to what the demands of traffic will be. Growth of traffic has been very unusual during the past few years. In discussing this,<sup>1</sup> I have shown that whereas for several years up to 1915 the annual increase in ton-mileage was about 4 per cent, and in passenger-mileage about 2 per cent, the increase from 1915 to 1917 was at the rate of about 20 per cent a year for ton-miles and nearly 7 per cent for passenger-miles. Bringing the statistics down to a later date, we find that the results thus far recorded for 1919 show traffic increases over the corresponding period of 1915 approximating 30 per cent, or an annual average of about 7 per cent over a four-year period. Freight traffic during the first eight months of 1919 was less by about one-seventh than during the corresponding months of 1918 and 1917. Even so, the annual rate of increase since 1915 has been much greater than during the period just preceding 1915. This unusual recent growth in traffic may be ascribed in part to the war, which undoubtedly had a very definite influence; on the other hand, the year 1919 has been for the United States a time of comparative peace. Again, the next few years will doubtless see a large amount of traffic due solely to the necessities of the reconstruction period. We are reasonably safe, therefore, in counting on a growing demand for transportation for some years to come. That means increased physical needs, and at the greatly increased prices now prevailing, as compared with those of the pre-war period, the conclusion is again inevitable that the future need of the railways for new money will be very great.

Another point in this connection is that there was a necessary slackening of railway improvement work during the war, which was not in any sense obviated thereby, but was for the most part merely *deferred* to a later date.

When improvements are deferred who is it that suffers? Chiefly the public, who must pay unnecessarily high rates for service

<sup>1</sup> See article already referred to, *Annals*, March, 1918, especially pages 43 and 44, where the growth of traffic from 1915 to 1917 is described.

that is below standard. When the roads are returned to private management, will they not look back over a period when railway improvements did not keep up with the growth of traffic? If so, it will take an unusual amount of financing to carry them through the period of readjustment. Examples of how the railways were bending every energy to make improvements demanded by the public (before government control) have come to light with the filing by numerous railways of applications with the Railroad Administration for a larger income guarantee than the standard return shown by their annual reports for the three-year test period. These applications for an increased guarantee are based for the most part on the unusually heavy expenditures for additions and betterments just prior to and during the test period. Railway managements during this period were trying to keep their plants up to the requirements of the growing territory served, and if they were meeting with difficulty then, how much greater will be the problem in the future? All signs, then, point to heavy financial burdens for the railways in the future. Traffic growth will continue to demand new railway facilities, and in addition there is the slack of the past two years that must be taken up.

#### FINANCIAL NEEDS

As an essay in prophecy, let us assume that the traffic in 1920 and succeeding years will be one-third greater than in 1916 (1919 having been nearly one-third greater than 1915), and that it cannot be efficiently handled without at least a ten per cent increase in equipment and other facilities. I take 1916 rather than 1915 as a basis of comparison because it was the best traffic year in the history of the American railways, up to our entry into the war. This would mean that as soon as practicable after the first of January, 1920, railway investment should be increased to such an extent as to be greater than in 1916 by from \$2,000,000,000 to \$2,500,000,000.<sup>2</sup> As a matter of fact, less than \$1,500,000,000

<sup>2</sup> Railway investment was about \$17,500,000,000 on June 30, 1916. A 10 per cent increase in facilities, assuming price levels to remain constant, would mean an addition to investment of \$1,750,000,000. But prices having increased from 50 to 100 per cent since 1916, it does not seem unreasonable to estimate that \$2,500,000,000 may be more nearly the present cost of the needed 10 per cent increase in facilities than \$1,750,000,000. This 10 per cent estimate of needs, considering the tremendous jump in traffic since 1916, seems to me very moderate.

will have been invested by the close of the present year. In other words, the railways have fallen perhaps \$1,000,000,000, or more than a year's needs, behind their normal program during the past three or four years. This gives some indication—although it is only approximate—of the extent of slackening in improvement work. In addition, the roads should have not less than \$500,000,000 a year to keep up with the growing needs of the country. In fact, the amount ought probably to be stated as above \$600,000,000, or (if allowance be made for the extent to which the railways must catch up on their improvement program) as high as \$750,000,000. This annual addition of from \$500,000,000 to \$750,000,000 is predicated in part on the normal pre-war expenditure of \$468,000,000 a year (which was the average of the years 1913 to 1917), with an allowance for increased prices, in part on the estimate for the period of federal control already referred to, and in part on the record actually made by the United States Railroad Administration. The Railroad Administration naturally made only the most needed additions and improvements, leaving to the period of renewed private control the less necessitous demands for additional facilities. Yet with all this, the capital expenditures authorized by the Railroad Administration in 1918 amounted to \$851,000,000. This was not necessarily a one-year program, it is true, yet with the authorizations made in 1919 the annual average promises to be well over \$500,000,000. This is in spite of the fact that authorizations in 1919 were pared to the bone, due probably as much to the impoverished condition of the Railroad Administration treasury as to the fact that the fighting was over and the return of the roads to their owners was looming on the horizon. Director General Hines' statement to the House Sub-committee on Appropriations in June (Hearings, page 144) on this point is as follows: "Our definite policy is that we are not going to make any capital expenditures for the year 1919 for these companies unless they finance them themselves *or unless they are of such an urgent character that we must go ahead with them in advance of arranging the financing.*" (Italics mine.)

Whether the annual needs prove to be half a billion, or three quarters of a billion, the amounts seem like enormous sums, and they are. But we are dealing with a gigantic industry whose invested capital is already nearing twenty billions of dollars, and whose needs are constantly growing.

## FINANCING THE NEEDS

Before taking up the question of financing, let us glance for a moment at the distinction between cost of maintenance and cost of improvements. To maintain the railway properties in such shape as to keep them fit to function properly and adequately calls for an annual expenditure running into many hundreds of millions. In 1918 it cost the United States Railroad Administration \$1,737,000,000 for maintenance. This expenditure is, however, a *current expense*, normally met out of operating revenues. For the purposes of the present discussion, it will be assumed that rates will continue to be so adjusted as to cover maintenance costs. No special question of financing therefore arises in that connection.

Improvement costs fall into a wholly different category. Improvements are of two general types—either they consist of extensions of railway lines into new territory, or they represent the betterment of railway property already under operation, including both the stationary plant and the equipment. The latter type, denominated for the most part by the Interstate Commerce Commission as “additions and betterments,” is far more important than the former, inasmuch as the amount of new railway construction has been very small in recent years. Both types are *capital* improvements, their primary cost has but little relation to operating expenses, and the money investment they represent must appear in the railway balance sheet as part of the property assets.

The cost of improvements can be financed in only two ways—either it is met out of surplus accumulations from the earnings of the current or former years and specifically appropriated by railway boards of directors for the purpose, or it must be financed through the issue and sale of new securities. During the calendar year 1917 railways of Classes I and II (which own or operate about 99 per cent of the total railway investment) added to their property investment about \$572,000,000. It is difficult to ascertain with exactitude how this \$572,000,000 was financed, but we know from a general study of the comparative balance sheets at the beginning and close of the year, and the income and profits and loss accounts for the year, that considerably less than a fifth of the amount came from earnings. It follows that a large pro-

portion of any railway financing must be done through the sale of securities, while only a fraction can be provided for out of surplus earnings.

If the American railways are to need from a half to three-quarters of a billion dollars a year, it is a vital question how the financing is to be carried out. In the past, the railways and their bankers have had no great difficulty, on the whole, in convincing the investor as to the integrity of railway securities. Of late the task has grown continually more difficult, and the tendency of capital to flow into industrial rather than railway channels has been marked. In the future, much will depend on the form that railway organization will take, and particularly on the extent to which the government becomes a partner, if at all, in railway responsibilities. If the government should go to the extent of guaranteeing future issues of railway securities, interest or principal or both, the problem would be much simplified. This seems hardly probable. If the number of railway corporations is much reduced, as appears more likely, the problem will be simplified in a different way, in that railway credit will depend on the *average* results of a considerable number of railway units combined in a single large unit. But the complications involved in uniting these smaller units, so as to preserve their properties intact and maintain the priorities of the mortgage rights involved, are so great that the whole question of enforced consolidations still seems to me an open one. In any case, this is not the place to enter upon that discussion.

While it is difficult, almost to the point of impracticability, to indicate how railway financing will be done in the future, it may not be amiss to point out that recent tendencies in the field of railway credit ought not to continue. With a few notable exceptions there have been no new issues of railway stock for the past five or six years. Capital stock has replaced bonds in the process of reorganizing some railway companies, but the amount of new stock issued and sold for cash in the open market has been relatively very small. Even in the case of railway bonds, there has been growing difficulty in placing new issues, and many of the less prosperous roads have been forced to the costly expedient of issuing short-term notes, selling them frequently below par and at high rates of interest. As a result of this process of financing

through bonds rather than stock, railway security holders are becoming *creditors* of the railways, rather than *owners*. Railway bonds today constitute 60 per cent of total railway securities outstanding in the hands of the public. Fixed charges are growing, and the present tendency unless checked will at the same time increase the annual burdens of the railway companies and decrease their ability to finance their future needs.

This note of warning is not uttered in a pessimistic spirit, but merely in the hope that those who are responsible for the future of the American railways will make it possible for them to secure the capital needed for their growth on a basis equitable both to the investor and the companies, and that a large proportion of the new capital will be stock, reasonably assured of a fair rate of dividends.

There is one phase of this question which I have thus far passed over as being merely incidental, although in itself it is an important matter. I refer to the amounts which the Railroad Administration will have advanced and expended on behalf of the railways for new equipment and improvements, a large proportion of which will not have been repaid by the railways when they are returned to their owners. In part, these amounts will probably be funded under some form of long-term agreement by which the principal will be reduced by annual installments paid by the railways to the government; in part, it is proposed to fund the \$400,000,000 expended for new equipment by a joint equipment trust, in which the government and the railways will participate, also payable by annual reduction of principal and interest. While the final details remain to be worked out as this is written, it is inconceivable that the railways will not be allotted reasonable time and means to meet the obligations to the government which the war conditions virtually forced on them. The principal bearing of this phase of the question on the larger problem of future railway financing will, therefore, relate largely to the effect which these debts to the government will tend to have on general railway credit.

In short, there are so many uncertainties in the future of the American railways, dependent on the outcome of the legislation now pending or to be proposed, that no detailed discussion can be undertaken here as to the manner in which the financial needs of



the railways are likely to be met. The amounts needed annually will unquestionably be large. If the government limits the profits of railways in the future, the amount they may devote out of surplus to new improvements will be relatively small, the great bulk coming from the sale of securities. If railway securities are in any way supported by the government, the difficulty of placing them in the hands of investors will be greatly lessened. Even if the government has nothing directly to do with the integrity of railway securities, it might provide such assurances of adequate railway income as would bring virtually the same result, although in a different manner. Whatever the method, the problem is bound to be both difficult and complicated. My own feeling is that the problem as outlined above has been conservatively stated. For example, the physical needs are quite likely to be greater than those described: 500 miles of new line are a pitifully small addition to our railway system each year, for it could easily be 5,000 without approaching the saturation point in railway construction for a long time. Again, the terminal facilities needed by the railways may alone exceed, in annual cost, the amount included in the estimate for other facilities than new mileage and new equipment. Still further, the allowance made for the increased cost of everything that goes into railway improvements, and especially for increased labor costs, is moderate. All things considered, the financial needs would appear likely to be closer to the upper than the lower of the two limits tentatively taken as a standard.